

ABSTRACT

A torque transfer assembly for a motor vehicle comprises a ring gear subassembly and a differential subassembly rotatably supported in said ring gear subassembly, a friction clutch pack for coupling the ring gear subassembly to the differential subassembly, and a hydraulic clutch actuator for selectively frictionally loading the clutch pack. The hydraulic clutch actuator includes a variable pressure relief valve assembly to selectively control the friction clutch pack. The variable pressure relief valve assembly includes a valve closure member, a valve seat complementary to the valve closure member, and a electro-magnetic actuator for engaging the valve closure member and urging thereof against the valve seat with an axial force determined by a magnitude of an electric current supplied to the electro-magnetic actuator so as to selectively vary a release pressure of the pressure relief valve assembly based on the magnitude of the electric current.